

FIGURE 1

TNVs ATGGGGTTTGGGCTGAGCTGGGTTTTCCTCGTTGCTCTTTTAAGA 5 QVQLVES G G CAGGTGCAGCTGGTGGAGTCTGGGGGAGGCGTG germline GGTGTCCAGTGT..... TNVs TNV148(B) GGTGTCCAGTGT.....A........ 10 RSLRLS  $C \cdot A$ G GTCCAGCCTGGGAGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGA germline TNVs S Y A M H W F S V TTCACCTTCAGTAGCTATGCTATGCACTGGGTCCGCCAGGCTCCA germline TNV14,15 TNV148(B) TNV196 E W V Α V I G L GGCAAGGGGCTGGAGTGGCAGTTATATCATATGATGGAAGC germline TNV14 TNV15 TNV148(B) TNV196 N K Y Y A D S V K G R AATAAATACTACGCAGACTCCGTGAAGGGCCGATTCACCATCTCC germline .GC...A.G.....G......A.....A..... TNV14 TNV15 .....A.G....... TNV148(B) TNV196

FIGURE 2A

FIGURE 2B

5 .	germline TNVs	E I V L T Q S P A T GAAATTGTGTTGACACAGTCTCCAGCCACC CCAGATACCACCGGA
10	germline TNVs	L S L S P G E R A T L S C R A CTGTCTTTGTCTCCAGGGGAAAGAGCCACCCTCTCCTGCAGGGCC
15	TNV14,15 TNV148,19	SQSVSSYLAWYQQKP AGTCAGAGTGTTAGCAGCTACTTAGCCTGGTACCAACAGAAACCT  TA
20 <b>D</b>	germline TNVs	G Q A P R L L I Y <u>D A S N R A</u> GGCCAGGCTCCCAGGCTCCTCATCTATGATGCATCCAACAGGGCC
	germline TNVs	T G I P A R F S G S G S G T D ACTGGCATCCCAGCCAGGTTCAGTGGCAGTGGGTCTGGGACAGAC
	germline TNVs	F T L T I S S L E P E D F A V TTCACTCTCACCATCAGCAGCCTAGAGCCTGAAGATTTTGCAGTT
<del>12</del> <b>3</b> 45	Germline TNVs	Y Y C Q Q R S N W P P F T F G TATTACTGTCAGCAGCGTAGCAACTGGCCTCCATTCACTTTCGGC
40	germline TNVs	P G T K V D I K R CCTGGGACCAAAGTGGATATCAAACGT

FIGURE 3

	ger TNVs	ne <u>MGFGLSW</u> VFLVALLRGVQC	signal
5	germline TNVs TNV148(B)	QVQLVESGGGVVQPGRSLRLSCAASGFTFSI	FR1
10	germline TNVs	SYAMH 	CDR1
15	germline TNVs TNV148(B)	WVRQAPGKGLEWVA FR2	
20	germline TNV14 TNV15 TNV148(B) TNV196	VISYDGSNKYYADSVKG	CDR2
	germline TNV14 TNV15 TNV148 TNV148B TNV196	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCARA	
₩ <b>D</b> <b>b</b> *5	germline TNV14 TNV15 TNV148(B) TNV196		CDR3
40	germline TNVs	WGQGTTVTVSS	J6

FIGURE 4

	TNVs	PAQLLFLLLWLPDTTG	signal
5 .	germline TNVs	EIVLTQSPATLSLSPGERATLSC	FR1
10	germline TNV14 TNV15 TNV148(B) TNV196	••••••	CDR1
15	germline TNVs	WYQQKPGQAPRLLIY	FR2
20	germline TNVs	DASNRAT CDR	2
	germline TNVs	GIPARFSGSGSGTDFTLTISSLEPEDFAVYYC	FR3
referen floori	germline TNVs	QQRSNWPPFT	CDR3
# # # # # # # # # # # # # # # # # # #	germline TNVs	FGPGTKVDIK	<b>J</b> 3

# FIGURE 5

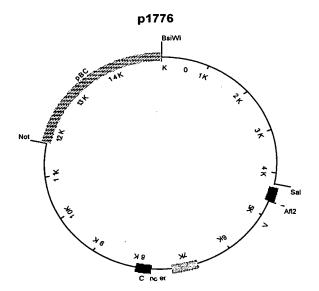
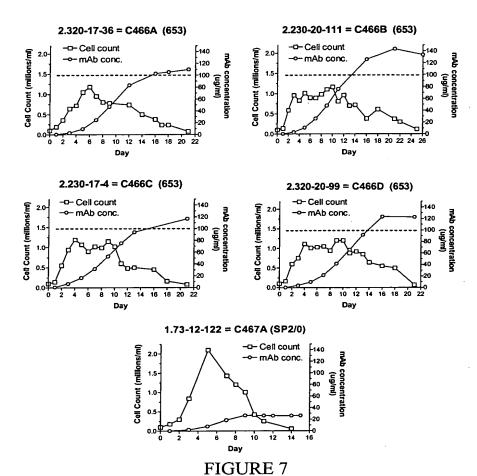


FIGURE 6





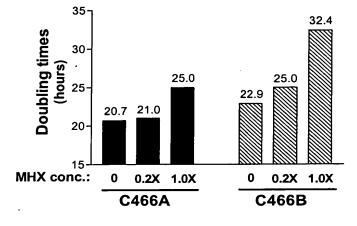
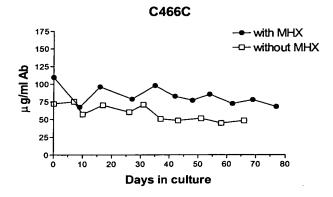


FIGURE 8



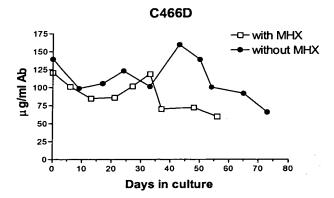
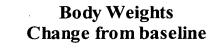


FIGURE 9



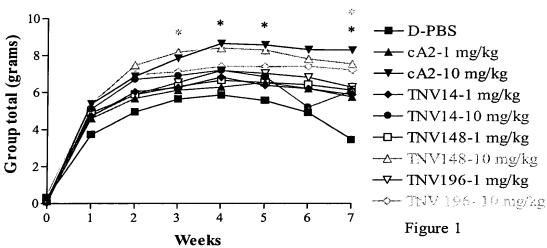
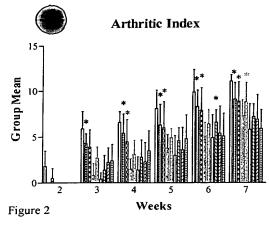


FIGURE 10



D-PBS (gr.#1)

CA2-1 mg/kg (gr. #2)

CA3 TNV14-1 mg/kg (gr.#4)

TNV148-1 mg/kg (gr.#6)

TNV196-1 mg/kg (gr.#8)

CA2-10 mg/kg (gr.#3)

TNV14-10 mg/kg (gr.#5)

TNV148-10 mg/kg (gr.#7)

TNV 196-10 mg/kg (gr.#7)

\* denotes Groups NOT significantly reduced when compared to the D-PBS Group.

All Groups not marked are significant (p<0.050).

#### FIGURE 11A

# 

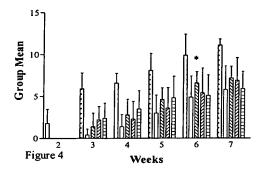
D-PBS (gr.#1)
CA2-1 mg/kg (gr. #2)
CA3-1 mg/kg (gr. #4)
CA3-1 mg/kg (gr.#4)
CA3-1 mg/kg (gr.#6)
TNV196-1 mg/kg (gr.#8)

\* significant (p<0.05) when compared to saline.

f Significantly INCREASED when compared to TNV148

#### FIGURE 11B

#### **Arthritic Index**



D-PBS (gr.#1)
CMD cA2-10 mg/kg (gr.#3)
CMD TNV14-10 mg/kg (gr.# 5)
CMD TNV148-10 mg/kg (gr.#7)
CMD TNV 196-10 mg/kg (gr.#9)

\* denotes Groups NOT significantly reduced when compared to the D-PBS Group.
All Groups not marked are significant (p<0.050).

#### FIGURE 11C

5

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15

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# Change in Body Weight (Group means) --- D-PBS --- 1 mg/kg cA2 --- 3 mg/kg cA2 --- 3 mg/kg TNV14 --- 3 mg/kg TNV148 Figure 1

# FIGURE 12

Weeks

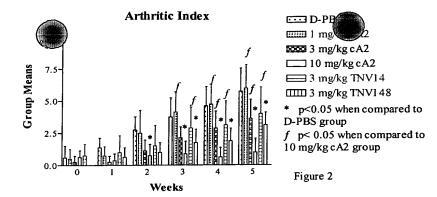
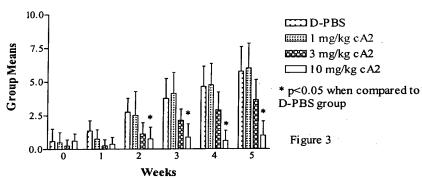


FIGURE 13A

# Arthritic Index (Controls)



### FIGURE 13B

#### **Arthritic Index**

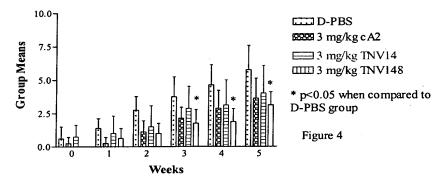


FIGURE 13C

45

40

5

10

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# Change in Body Weight

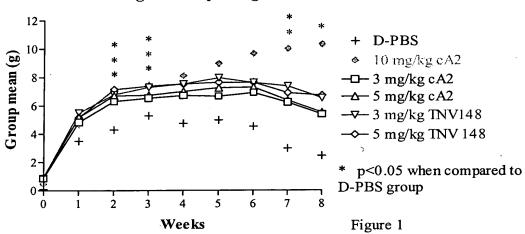
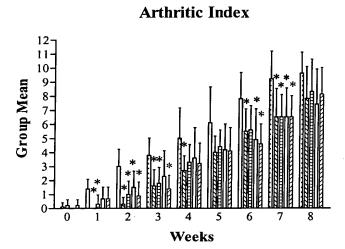


FIGURE 14

10.

15

199201375" CECTOR



D-PBS

5 mg/kg cA2

5 mg/kg TNV 148

IIII 3 mg/kg cA2

**ZZZZ** 3 mg/kg TNV148

\* p<0.05 when compared to D-PBS group

Figure 2

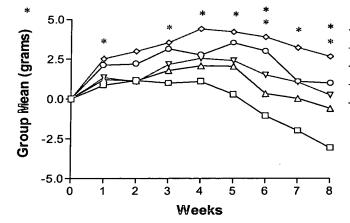
## FIGURE 15

35





10



----- D-PB\$

-∆- cA2-1mg/kg

-<del>▽</del>- TNV148-1mg/kg

\*denotes a p value of <0.05 when compared to D-PBS

Figure 1

15

FIGURE 16

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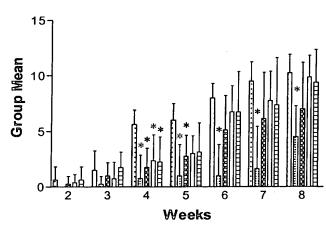


## Arthritic Index

5

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D-PBS

**EXECUTE** CA2-10mg/kg

‱ cA2-1mg/kg

\_\_\_\_\_ TNV148-1mg/kg

☐ rTNV148B-1mg/kg

\*denotes a p value of <0.05 when compared to D-PBS

Figure 2

FIGURE 17